

Title Basics of colour engineering and cooling technology of elect	Code 1010331461010320655
Field Computer Science	Year / Semester 3 / 6
Specialty -	Course core
Hours Lectures: 2 Classes: - Laboratory: 1 Projects / seminars: -	Number of credits 4
	Language polish

Lecturer:

PhD, DSc Konrad Domke
tel. +48 61 665 2397, e-mail: Konrad.Domke@put.poznan.pl
PhD Krzysztof Wandachowicz
tel. +48 61 665 2585, e-mail: Krzysztof.Wandachowicz@put.poznan.pl

Faculty:

Faculty of Electrical Engineering
ul. Piotrowo 3A
60-965 Poznań
tel. (061) 665-2539, fax. (061) 665-2548
e-mail: office_deef@put.poznan.pl

Status of the course in the study program:

Obligatory course of the study program in Computer Science Faculty for full time undergraduate studies.

Assumptions and objectives of the course:

The student should obtain basic knowledge of colorimetry and lighting engineering for the range that is necessary for description of photometric and colorimetric properties of computer hardware. Basics of thermocouples and heat transfer, also cooling methods in electronic equipments.

Contents of the course (course description):

Basics of lighting engineering. Eye and vision, properties and components of an eye, visual perception. Principal laws in lighting engineering. Basics of colorimetry. Additive and subtractive mixture of colours. Description of trichromatic systems. Photo-, spectro- and colorimetric measurements. Colour management systems for computer systems. Testing of colorimetric and photometric properties of visual displays according to technical standard requirements. Basics of thermocouples. Convection, conduction and radiation. Ventilation in enclosures. Electronic devices as heat sources. Methods of heat transfer. Methods of cooling and intensification of this process. Cooling of microprocessors, storage elements and others part of computers.

Introductory courses and the required pre-knowledge:

Basic knowledge of physics, electrical engineering and computer science.

Courses form and teaching methods:

Lectures, exercises and practical training in laboratory.

Form and terms of complete the course - requirements and assessment methods:

Test, reports from laboratories

Basic Bibliography:

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Additional Bibliography:

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